IN THE CLAIMS

1-92 (canceled)

93 (new) A process for the production of recombinant two chain urokinase (tc-uPA) into the culture medium of an eukaryotic cell line wherein at least 95% of the total urokinase is catalytically active two chain urokinase (tc-uPA), said process comprising the following steps:
a) culturing a mammalian cell line which has been genetically transfected with a cDNA sequence encoding for a urokinase precursor in a culture media comprising an alkanoic acid selected from the group consisting of: butyric acid, sodium butyrate sodium propionate, magnesium butyrate, tributyrin and phenyl-butyrate, their derivatives or salts thereof,
b) continuing said culture until the culture contains at least 95% of the total urokinase as catalytically active two chain urokinase.

94 (new) A process according to claim 93 further comprising the recovery of the cell culture supernatant for the isolation of recombinant human tc-uPA.

95 (new) A process according to claim 93 wherein said eukaryotic cell line is selected from CHO and CHO-Messi.

96 (new) A process according to claim 93 wherein said cell culture medium is serum-free.

97 (new) A process according to claim 93 wherein the concentration of said alkanoic acids is from 0.1 to 20 mM.

98 (new) A process according to claim 93 wherein after said alkanoic acids are added, the cell culture is continued at a temperature from 30°C to 37°C.

99 (new) A process according to claim 98 wherein said temperature is from 33°C to 35°C.

100 (new) A process according to claim 93 wherein the tc-uPA in said cell culture medium is at least 4000IU/ml.

101 (new) A process according to claim 93 wherein, the recovered culture medium is acidified with a weak acid to pH form 5.0 to 5.8, optionally a non-ionic detergent is added adn the culture medium is then filtered.

102 (new) A process for the production of recombinant two chain urokinase (tc-uPA) into the culture medium of an eukaryotic cell line wherein at least 95% of the total urokinase is catalytically active two chain urokinase (tc-uPA), said process comprising the following steps:
a) culturing a mammalian cell line which has been genetically transfected with a cDNA sequence encoding for a urokinase precursor in a culture media comprising an alkanoic acid selected from the group consisting of: butyric acid, sodium butyrate sodium propionate, magnesium butyrate, tributyrin and phenyl-butyrate, their derivatives or salts thereof,
b) continuing said culture for a time of at least 120 hours.

103 (new) A process according to claim 102 further comprising the recovery of the cell culture supernatant for the isolation of recombinant human tc-uPA.

104 (new) A process according to claim 102 wherein said eukaryotic cell line is selected from CHO and CHO-Messi.

105 (new) A process according to claim 102 wherein said cell culture medium is serum-free.

106 (new) A process according to claim 102 wherein the concentration of said alkanoic acids is from 0.1 to 20 mM.

107 (new) A process according to claim 102 wherein after said alkanoic acids are added, the cell culture is continued at a temperature from 30°C to 37°C.

108 (new) A process according to claim 107 wherein said temperature is from 33°C to 35°C.

109 (new) A process according to claim 102 wherein the tc-uPA in said cell culture medium is at least 4000IU/ml.

110 (new) A process according to claim 102 wherein, the recovered culture medium is acidified with a weak acid to pH form 5.0 to 5.8, optionally a non-ionic detergent is added and the culture medium is then filtered.